```
                    11          20          29          38          47          56
5'GGAGC TCC GAG TGT CCA CAG GAA GGG AAC TAT CAG CTC GCA TCT GTA AGG ATG
                                                                      M

              65          74          83          92         101         110
CTG TCC ATG CTG AGG ACA ATG ACC AGA CTC TGC TTC CTG TTA TTC TTC TCT GTG
 L   S   M   L   R   T   M   T   R   L   C   F   L   L   F   F   S   V

             119         128         137         146         155         164
GCC ACC AGT GGG TGC TTC GCA GCA GCC TCT TCT CTT GAG ATG CTC TCG AGG
 A   T   S   G   C   F   A   A   A   S   S   L   E   M   L   S   R

             173         182         191         200         209         218
GAA TTC GAA ACC TGT GCC TTC TCT TCC TTT TCT TCC CTG CCT AGA AGC TGC AAA GAA
 E   F   E   T   C   A   F   S   S   F   S   S   L   P   R   S   C   K   E

             227         236         245         254         263         272
ATC AAG GAA CGC TGC CAT AGT GGT GCA GAT GAT GGC CTG TAT TTT CTC CGC ACC AAG
 I   K   E   R   C   H   S   G   A   D   D   G   L   Y   F   L   R   T   K

             281         290         299         308         317         326
AAT GGT GTT GTC TAC CAG TGT TTC ACC TGT GAC GAC ATG ACT TCT GGG GGT GGC TGG
 N   G   V   V   Y   Q   C   F   T   C   D   D   M   T   S   G   G   G   W
```

FIGURE 1A

```
              335               344               353               362               371               380
ACC CTG   GTG GCC AGC   GTG CAC GAG AAT GAC ATG   CAT GGG AAG   TGC ACG GTG   GGT
 T   L     V   A   S     V   H   E   N   D   M     H   G   K     C   T   V     G

              389               398               407               416               425               434
GAT CGC   TGG TCC AGT   CAG CAG GGC AAC AAA GCA   GAC TAC CCA   GAG GGG GAT   GGC
 D   R     W   S   S     Q   Q   G   N   K   A     D   Y   P     E   G   D     G

              443               452               461               470               479               488
AAC TGG   GCC TAC AAC   ACC TTT GGA TCT GCA GAG   GCG GCC ACG   AGC GAT GAC
 N   W     A   Y   N     T   F   G   S   A   E     A   A   T     S   D   D     D

              497               506               515               524               533               542
TAC AAG   CCT GGC TAC   GAC ATC CAG GCC GCC AAG   GAC CTG GGC   ATC TGG   CAT
 Y   K     P   G   Y     D   I   Q   A   A   K     D   L   G     I   W     H

              551               560               569               578               587               596
GTG CCC   AAG TCC ATG   CCC CAG CAT TGG AGA AAC   AGC GCC CTG   CTG AGG   TAC
 V   P     K   S   M     P   Q   H   W   R   N     S   A   L     L   R     Y

              605               614               623               632               641               650
CGC ACC   AAC ACT GGC   TTC CTC CAG AGA CTG GGA   CAT AAT CTG   GGC ATC   TAC
 R   T     N   T   G     F   L   Q   R   L   G     H   N   L     G   I     Y
```

FIGURE 1B

```
                  659                           668               677                   686                   695                       704
      CAG AAA  TAC CCA GTG  AAA  TAC  AGA  TCA GGG AAA  TGT TGG AAT GAC AAT GGC  CCA
       |   |    |   |   |    |    |    |    |   |   |    |   |   |   |   |   |    |
       Q   K    Y   P   V    K    Y    R    S   G   K    C   W   N   D   N   G    P

                  713                               722               731                       740                   749                   758
      GCC ATA  CCT GTG GTC  TAT  GTC  GAC  TTT GGT GAT  GCT AAG ACT GCA TCT TAT  TAC
       |   |    |   |   |    |    |    |    |   |   |    |   |   |   |   |   |    |
       A   I    P   V   V    Y    V    D    F   G   D    A   K   T   A   S   Y    Y

                  767                               776               785                       794                   803                   812
      TCA CCG  TAT GGT CAA  CGG  GAA  TTT  GTT GCA TTC  GTT CAG TTC CGG GTG TTT
       |   |    |   |   |    |    |    |    |   |   |    |   |   |   |   |   |
       S   P    Y   G   Q    R    E    F    V   A   F    V   Q   F   R   V   F

                  821                               830               839                       848                   857                   866
      AAT AAC  GAG AGA GCA  GCC  AAC  GCC  CTT TGT GCT  GGG ATA AAA GTT ACT GGC  TGT
       |   |    |   |   |    |    |    |    |   |   |    |   |   |   |   |   |    |
       N   E    R   A   A    N    A    L    C   A   G    I   K   V   T   G   C

                  875                               884               893                       902                   911                   920
      AAC ACT  GAG CAT CAC  TGC  ATC  GGT  GGA GGA TTC  CCA TTC CAG CCA GGC AAA  CCC
       |   |    |   |   |    |    |    |    |   |   |    |   |   |   |   |   |    |
       N   T    E   H   H    C    I    G    G   G   F    P   F   Q   P   G   K    P

                  929                               938               947                       956                   965                   974
      CGT CAG  TGT GGG GAC  TTC  TCC  GCC  TTT GAC TGG  GAT GGA TAT ACT CAC GTT
       |   |    |   |   |    |    |    |    |   |   |    |   |   |   |   |   |
       R   Q    C   G   D    F    S    A    F   D   W    D   G   Y   T   H   V
```

FIGURE 1C

```
                 983               992              1001              1010              1019              1028
AAG AGC AGC TGC AGT CGG GAG ATA ACG GAG GCG GCT GTA CTC TTG TTC TAT AGA
--| --| --| --| --| --| --| --| --| --| --| --| --| --| --| --| --| --|
K   S   S   C   S   R   E   I   T   E   A   A   V   L   L   F   Y   R

                1037              1046              1055              1064              1073              1082
TGA GAC AGA GCT CTG CGG TGT CAG GGC GAG AAC CCA TCT TCC AAC CCC GGC TAT
--| --| --| --| --| --| --| --| --| --| --| --| --| --| --| --| --| --|
*

                1091              1100              1109              1118              1127              1136
TTG GAG ACG GAA AAA CTG GAA TTC TAA CAA GGA GAG GAG GAG ACT AAA TCA CAT
--| --| --| --| --| --| --| --| --| --| --| --| --| --| --| --| --| --|

CAA TTC 3'
--| --|
```

FIGURE 1D

```
 1  M L S M L R T M T R L C F L L F F S V A    2921920CD1
 1  M - - - - - - - - - N Q L S F L L F L I A T    g8096221
 1  M - - - - - - - - - - T Q L G F L L F I M V A    g3357909

21  T S G C S A A A A S S L E M L S R E F E    2921920CD1
14  T R G W S T D E A N T Y - - - F K E W -    g8096221
14  T R G C S A A E E N - - - - L D T N R W G    g3357909

41  T C A F S F S S L P R S C K E I K E R C    2921920CD1
30  T C S S S - P S L P R S C K E I K D E C    g8096221
31  - - N S F F S S L P R S C K E I K Q E H    g3357909

61  H S A G D G L Y F L R T K N G V V Y Q T    2921920CD1
49  P S A F D G L Y F L R T E N G V I Y Q T    g8096221
49  T K A Q D G L Y F L R T K N G V I Y Q T    g3357909

81  F C D M T S G G G W T L V A S V H E N    2921920CD1
69  F C D M T S G G G W T L V A S V H E N    g8096221
69  F C D M T A G G G W T L V A S V H E N    g3357909
```

FIGURE 2A

```
101  D M H G K C T V G D R W S S Q Q G N K A    2921920CD1
 89  D M R G K C T V G D R W S S Q Q G S K A    g8096221
 89  N M R G K C T V G D R W S S Q Q G N R A    g3357909

121  D Y P E G D G N W A N Y N T F G S A E A    2921920CD1
109  D Y P E G D G N W A N Y N T F G S A E A    g8096221
109  D Y P E G D G N W A N Y N T F G S A E A    g3357909

141  A T S D D Y K N P G Y Y D I Q A K D L G    2921920CD1
129  A T S D D Y K N P G Y Y D I Q A K D L G    g8096221
129  A T S D D Y K N P G Y F D I Q A E N L G    g3357909

161  I W H V P N K S P M Q H W R N S A L L R    2921920CD1
149  I W H V P N K S P M Q H W R N S I S L L R    g8096221
149  I W H V P N K S P L H N W R K S I S L L R    g3357909

181  Y R T N T G F L Q R L G H N L F G I Y Q    2921920CD1
169  Y R T D T G F L Q T L G H N L F G I Y Q    g8096221
169  Y R T F T G F L Q H L G H N L F G L Y K    g3357909
```

FIGURE 2B

201	K Y P V K Y R S G K C W N D N G P A I P	2921920CD1
189	K Y P V K Y G E G K C W T D N G P V I P	g8096221
189	K Y P V K Y G E G K C W T D N G P A L P	g3357909
221	V V V Y D F G D A K K T A S Y Y S P Y G Q	2921920CD1
209	V V V Y D F G D A Q K T A S Y Y S P Y G Q	g8096221
209	V V V Y D F G D A R K T A S Y Y S P S G Q	g3357909
241	R E F V A G F V Q F R V F N N E R A A N	2921920CD1
229	R E F T A G F V Q F R V F N N E R A A N	g8096221
229	R E F T A G Y V Q F R V F N N E R A A S	g3357909
261	A L C A G I K V T G C N T E H H C I G G	2921920CD1
249	A L C A G M R V T G C N T E H H C I G G	g8096221
249	A L C A G V R V T G C N T E H H C I G G	g3357909
281	G G F F P Q G K P R Q C G D F S A F D W	2921920CD1
269	G G Y F P E A S P Q Q C G D F S G F D W	g8096221
269	G G F F P E G N P V Q C G D F A S F D W	g3357909

FIGURE 2C

```
301  D G Y G T H V K S S C S R E I T E A A V   2921920CD1
289  S G Y G T H V G Y S S S R E I T E A A V   g8096221
289  D G Y G T H N G Y S S S R K I T E A A V   g3357909

321  L L F Y R   2921920CD1
309  L L F Y R   g8096221
309  L L F Y R   g3357909
```

FIGURE 2D